

TIMELINEZ

Volume 2 Issue 2

February 1984

\$1.00

2068 / 1000 S/W REVIEWS
LATEST SINCLAIR NEWS
BAY AREA USER GROUPS INFO.

T I M E X U P D A T E

The special January meeting put on by the south bay group provided the source for direct product news from Timex. The number of new products confirmed and hinted at were reassuring to those of us hoping to build upon our 2068.

Software demonstrated include included "Vu-3D", a 3-D marvel for designers; "Ant Attack", sure to be a best seller with graphics rivaling the arcades "Zaxxon"; and Scrabble (wouldn't load, but sounded good). There was also an experimenters board with "The Hobbit" written on the label.

We were told Timex had signed an agreement with Digital that would produce a Timex CPM. Other languages are also on the way including Forth, Pascal, and Logo - all on cartridge so that you will have full memory space.

We were shown a micro drive and sample print outs from the new 80 column printer. The modem has been delayed but should still be available soon. The big news was given in the form of a "rumor". Timex "might" be coming out with a disk drive that might use a disk under four inches in diameter. You "might" see it in September.

**** YOUR HELP IS NEEDED ****

A.H.T.A. (AMERICAN HEAD TRAUMA ALLIANCE) IS A NON-PROFIT ORGANIZATION THAT IS DEDICATED TO HELPING THE THOUSANDS OF VICTIMS OF HEAD INJURY. THEIR PROGRAM INCLUDES THE DEVELOPMENT OF COGNITIVE REHABILITATION SOFTWARE.

A.H.T.A. WOULD LIKE OUR HELP IN WRITTING T/S SOFTWARE PROGRAMS THAT CAN BE USED FOR COGNITIVE REHABILITATION.

AS YOU KNOW, THE DECEMBER ISSUE OF "TIMELINEZ" WAS DEDICATED TO A.H.T.A. AND INCLUDED A COMPLETE OUTLINE OF THE GUIDELINES THAT SHOULD BE USED IN WRITTING SUCH SOFTWARE.

DICK HUXTABLE OF LOS ANGELES, WHO WROTE THE GUIDELINES, MADE A PRESENTATION AT THE JANUARY MEETING OF THE SOUTH BAY USERS GROUP. IT WAS CLEAR TO ALL THAT THAT THIS WAS A CAUSE WHERE WE CAN MAKE A REAL CONTRIBUTION.

I HAVE BEEN ASKED TO COORDINATE EFFORTS BY BAY AREA USERS IN THE WRITTING OF COGNITIVE REHABILITATION PROGRAMS.

TO GET THIS EFFORT UNDERWAY, I ASK EVERYONE TO READ OR RE-READ THE DECEMBER ISSUE OF TIMELINEZ. IF YOU BELIEVE THAT YOU CAN MAKE A CONTRIBUTION TO THIS IMPORTANT CAUSE, PLEASE ATTEND A SPECIAL SESSION AT THE END OF THE NEXT MEETING OF THE PENINSULA USER GROUP:

SUNDAY, 3:30 P.M.
FEBRUARY 19, 1984
PENINSULA HOSPITAL
1783 EL CAMINO REAL
BURLINGAME

ALSO PLAN ON ATTENDING THE REGULAR USER GROUP MEETING AT 1 P.M. (SEE DIRECTIONS IN THIS ISSUE.)

WALT GABY

* VOLUNTEERS NEEDED *
* ARE YOU PLANNING TO BE AT *
* THE SAN MATEO FAIRGROUNDS *
* ON FEB. 25-26TH FOR THE *
* COMPUTER SUPERMARKET FAIR? *
* THE BAY AREA USERS GROUPS *
* HAVE PURCHASED A BOOTH *
* IN ORDER TO RECRUIT NEW *
* MEMBERS. IF YOU CAN HELP *
* STAFF THIS BOOTH FOR A FEW *
* HOURS PLEASE CONTACT JOEL *
* BRODY AT 415 531-6566 *
* BEFORE 9 PM. THANKS. *

TIMELINEZ (C) IS THE JOINT PUBLICATION OF THREE TIMEX/SINCLAIR USER GROUPS IN THE SAN FRANCISCO / OAKLAND BAY AREA. OLD AND NEW MEMBERS ARE ALWAYS WELCOME - SO ARE HARDWARE, SOFTWARE, AND COMPUTER BEGINNERS. SEE YOU AT THE NEXT MEETING.

TIMELINEZ Report on SBAZUG Meeting

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SOUTH BAY UPDATE

SOUTH BAY MEETING A SUCCESS !!!

More than 130 people attended the January South Bay meeting to hear our guest speakers: attorney Dick Huxtable, member of the board of directors of the American Head Trauma Alliance, addressed the need for affordable computers and programs for their organization, and Billy Skyrme, Director of Product Planning for Timex Computer Corporation, demonstrated the new products introduced with the 2068 computer.

At this meeting we signed up 14 new members, and I expect to have additional new members join us at the February meeting.

I have invited 2 guest speakers for the Feb. 28th meeting: Eric Reiter, of Computer Continuum in San Francisco, will speak on his products; and, Bob Orrfelt, fellow club member, will speak on his newly-developed word processing program for the 2068. I understand that this is the first word processor on the market for the 2068 which works with the Timex 2040 printer. Both talks will be brief so that there will be plenty of time for networking.

I am lining up speakers for the upcoming March and April meetings. Looking forward to meeting with all of you on February 28th.

Rita Carr
President, SBAZUG

P.S. An H.P. calculator was left at the Dysan conference room before the Jan. meeting. If anyone knows of it's whereabouts please call me at (408) 738-2888, ext 4579.

T/S 2068 Software Review:

Zeus Assembler

The Zeus Assembler is the first serious piece of utility software available for the 2068 and it is very good. It is distributed by Softsync and was originally written by Crystal Computing in Britain for the Spectrum. It's main feature is the assembler that quickly and easily converts Z80 mnemonics to machine code in any location in the memory that you specify. This feature is unusual in that you number your Z80 commands with line numbers as in a BASIC line. This feature works very well and is quick to learn. It is very fast and easy to edit your program which can be done with the ease of a good word processor, since the editing utilizes a full screen editor.

Zeus includes a "mini monitor" which allows you to directly examine and modify memory locations. It has facilities to list your programs or any of your work to the printer. The documentation is adequate, but it sometimes takes a bit of digging to get the instructions clearly understood.

The Program's package promises that there is a feature that allows you to display the current registers and also alter them. I have not found this feature in the instructions or learned to use it in the program. I hope Softsync soon corrects the omission.

All in all Zeus is a fine, easy to use assembler that will greatly facilitate machine code programming on the 2068. Once the ability for this program to examine registers is clarified you will be hard pressed to find a better assembler.

Joel Brody

TIMELINEZ is your newsletter. It will be as good as you make it. How about contributing an article, review, letter or whatever?

If you purchase an item advertised in TIMELINEZ please let the sponsor know where you found his ad. THANKS

TIMELINEZ TS 1000 Software Review

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SOFTWARE REVIEW

Program: Music Library
System Type: Business/Home
ROM/RAM: 8k/16k
Written in: BASIC, listable
From: Kendric C. Smith
927 Mears Court
Stanford, CA
94305
Price: Manual & tape, \$14

Music Library is a data base management program that provides a convenient format for organizing your music collection. It allows you to store three lines of information (each 32 characters wide) on 100 or more items of music. You decide how to use the three lines, such as name of artist on line 1, album name on line 2, and favorite selections on line 3. The program is menu-driven, providing you with options to enter, correct, delete, and save data, or print out to the screen or printer.

Two features of particular note are the routines that alphabetize and renumber (missing from so many similar programs); and OMNISEARCH, which will search for any word string in any line. Also convenient is the option to exit the data input sequence at any time.

Music library can be easily modified to adapt to individual needs. This is important because the trade-offs selected between user-friendly features, space available for data, and processing speed, vary from person to person. The manual is well written in a full-size page format and gives numerous tips on modifying the program (which is also listed). I was able to increase the number of albums from just over 100 to 175 by deleting the 3rd line, re-dimensioning, and cramming data into the trailing spaces of the remaining 2 lines.

The search routine is slow but compete. I could speed it up by having it search only the first line's word string. But I like OMNISEARCH enough to tolerate the delay. It's great to be able to not only ask for a list of all albums by a particular artist, but to also be able to list the various artists who have recorded the same "classic", such as "Autumn Leaves" or "Mack the Knife."

As you make modifications to the basic progam, a simple GOTO statement will tell you how much useable memory is available for data. The manual is so friendly and detailed, that it becomes nearly a tutorial on programming in BASIC, with each routine explained, along with suggestions on possible modifications.

I recommend Music Library for those of you like me who have so many record albums and tapes scattered about, that you don't know what you have or where to find it. In fact, the program could be easily adapted to any type of collection, such as photo prints and slides.

Dennis J. Parker, Sunnyvale, CA

CHARACTER DESIGN

AS YOU KNOW, THE T/S 2068 PROVIDES FOR USER-DEFINED GRAPHICS. THIS MEANS THAT YOU CAN DESIGN SPECIAL CHARACTERS TO REPRESENT ANY SYMBOLS YOU WISH TO USE.

ONE USEFUL APPLICATION OF THIS FEATURE IS THE ABILITY TO HAVE FOREIGN ALPHABETS. FOR EXAMPLE, HERE IS MY FORMATTING FOR THE RUSSIAN ALPHABET:

А Б В Г Д Е Ё Ж З И Й
К Л М Н О П Р С Т У Ф
Х Ц Ч Ш Щ Ы Ъ Э Ю Я

THE MANUAL'S METHOD FOR DESIGNING CHARACTERS IS A BIT CUMBERSOME AND SLOW. HOWEVER, THERE ARE PROGRAMS WHICH MAKE THE JOB MUCH EASIER.

ЗДРАВСТВУЙТЕ!

WALT GABY

Sinclair Research's Low-Cost Computer Is Aimed at Home Users, Small Businesses

By MAILE HULIHAN and DENNIS KNEALE
Staff Reporters of THE WALL STREET JOURNAL

Sinclair Research Ltd. of Britain, as expected, introduced a low-priced computer aimed at sophisticated home users, schools and small businesses.

The QL computer, which stands for "quantum leap," will be priced in Britain at the equivalent of \$559. Sinclair said the computer will rival International Business Machines Corp.'s personal computer and Apple Computer Inc.'s IIe at a far lower price. In its price range, the QL also will compete with Coleco Industries Inc.'s Adam computer and a microcomputer made by Acorn PLC of Britain.

The QL has aroused interest in the computer industry because of its low price and advanced capabilities.

Analyst Sees Appeal for Home Users

"They're offering a hell of a lot of computer for the price," said David Gibbons, an analyst at James Capel & Co. in London. "But are they producing something too cheap and cheerful for business users? I think it will appeal more to the upmarket home user."

The QL computer carries 128 kilobytes of memory, storing about 128,000 pieces of information, and is sold with two tape-storage drives. A printer, video screen and additional storage devices cost extra. The product's main engine, the Motorola 68008 chip, impressed analysts with the ability to process 32 bits, or pieces of information, at a time rather than only eight bits at a time as with most inexpensive computers. The QL's 128K memory stores about twice the amount of information stored by most home machines.

The unit comes with four software programs written by Psion Ltd. The programs, designed for laymen, enable word processing, graphic production, data processing and business planning.

One drawback of the QL is its incompatibility with the software programs that fit the IBM PC and the Apple IIe, which together hold more than half of the U.S. office-computer market.

Mail-Order Sales Slated

Starting in late February, the QL will be sold through mail order in Britain, as were Sinclair's previous three computer models.

Monthly production of 20,000 units is planned by summer, when Sinclair expects to sell the slender, 18-inch-long units throughout Europe and the U.S. The QL will retail for \$499 in the U.S.

Analysts said the Sinclair product in the U.S. probably is better aimed at the home computers of IBM, Commodore International Ltd. and Coleco rather than office computers, but that production constraints could stop the QL from having a significant impact until 1985. At the \$500 price range in the U.S., the QL would offer more software and add-on parts than IBM's new PCjr at \$669, which hasn't any extras. The Sinclair computer also would undercut the \$700 Adam of Coleco, which offers built-in writing software and a printer and tape-storage device. But the product would be more expensive than the Commodore 64, which sells at \$200 without extras, and Commodore's 264, a built-in software model that's expected to begin selling at about \$300 next April.

"It sounds very interesting. There certainly would be a U.S. market for it. But I'd question their distribution technique. Going through mail order would be pretty risky," said a Commodore marketing executive. At 20,000 units a month by the summer, the Sinclair production would be less than one-fifth of Commodore's, a primary reason the QL won't have much impact in the U.S. before 1985, the executive said.

TIMEX sinclair

TIMEX/SINCLAIR FAMILY OF COMPUTERS...



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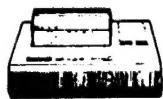


T/S1500 - 16K \$79.95



T/S2068 - 48K
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AND PERIPHERALS...



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Cassette Player \$49.95



T/S 2020



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(AVAIL. JUNE '84)

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TIMELINE 2068 Display File Explorer

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T/S 2068
Display File Explorer

Enter this short program:

```
10 FOR f=16384 TO 16384+6143  
20 POKE f,255  
30 INPUT a$  
40 NEXT f
```

Run the program. Hit the ENTER key several times or just hold it down. This program POKEs the number 255 successively into each location of the first Display File of the 2068. Unlike the T/S 1000 this file does not move around in the memory. It begins at location 16384 and contains 6144 Bytes. Each Byte codes for an 8 pixel line on the screen display. In this case if you hit ENTER 32 times you will 32 8 pixel segments that create a straight line across the top of the screen.

If you continue to hold down the ENTER key the entire screen will be filled up (you can also delete line 30). However, it is not done each successive line after another. It fills in a line and then skips 8 lines for the next line. It then continues the pattern until 8 lines are filled in and then it fills in the line under the first line. This pattern is continued until the top third of the screen is filled in. The second third of the screen is then filled in by

the same procedure and then the final third is finished.

If you change the 255 in line 20 (using any number between 0 and 255) the pixel array of the 8 pixel sequence will be changed. The number defines the pixel arrangement in the same manner a number defines a line for a User Defined Graphic symbol (see Chapter 18 of the User Manual for an explanation). Try different numbers in line 20 to test their effect.

There is a second Display File that is used for the 64 column mode. This feature is beyond the scope of this article. However, just learning the use of the first Display File is an adequate challenge for machine code programmers.

Joel Brody

SOFTWARE AT 20 PERCENT OFF FOR MEMBERS OF USER GROUPS

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A Program written by an accountant to help the individual tax Payer organize his or her tax records to HELP alleviate the confusion of tax preparation. This package contains two Programs--the 1st Program, WMJINCOME, deals with the income portion of your tax records --the 2nd Program, WMJDEDUCT, deals with itemized deductions. These Programs should be used with a Printer, but can be altered. Cassette \$15.00.

"SPACE-BASE ATTACK"

Exciting space game with excellent graphics. This program requires 3 Program to load the full game. With machine code routine. Cassette \$8.00.

"GOAL STATISTICS"

For the serious Golfer who wants to know a lot about his Golf Game. This Program is used commercially to Provide Golfer with statistics of their Golf Games. Provides data on last 10 round and year-to-date information. Must be used with a Printer. Cassette \$8.00.

"LOAN AMORTIZER"

Provide any three of four factors
Program will calculate unknown.
Will provide printout any Period
desired. Cassette \$10.00.

All Programs are for TS1000, TS1500
Sinclair ZX81 with 16K of memory.

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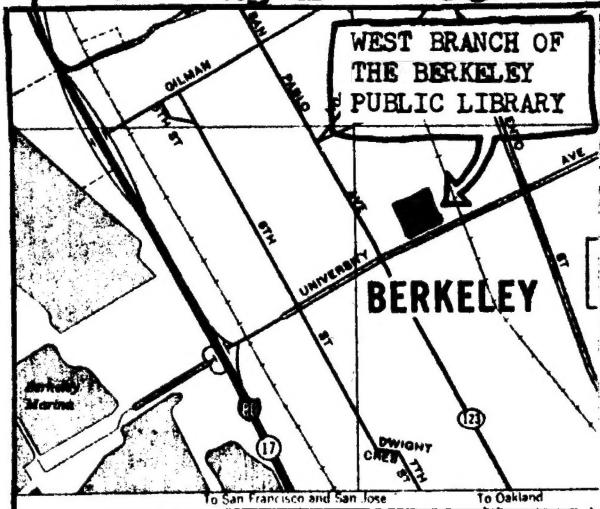
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TIMELINEZ Bay Area User Group Information

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ALL QUESTIONS CONCERNING
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E B Z U G
854 40TH STREET
RICHMOND, CA 94805
(415) 234-3310

MEETINGS BEGIN 7:30 PM THIRD
THURSDAY OF THE MONTH.
- FEBRUARY 16
- MARCH 20* third TUESDAY

PENINSULA USER GROUP

MEMBERSHIP SCHEDULE:

FULL (NEWSLETTER AND S/W
LIBRARY PRIVILEGES) \$15/YR

PARTIAL (NEWSLETTER ONLY) \$10/YR

FOR MORE INFORMATION CONTACT:

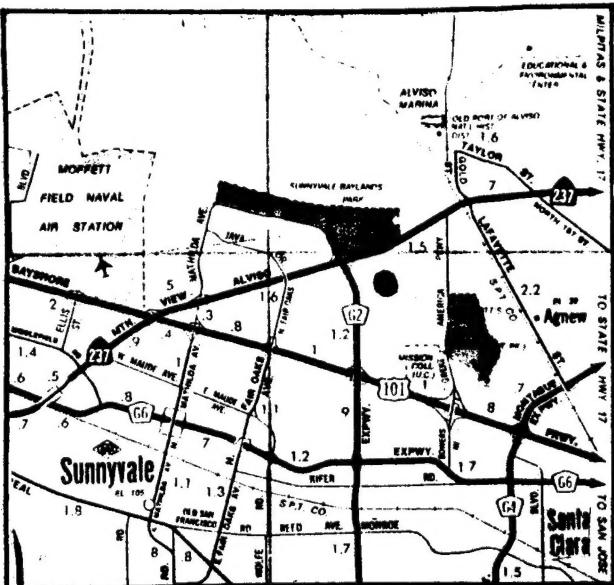
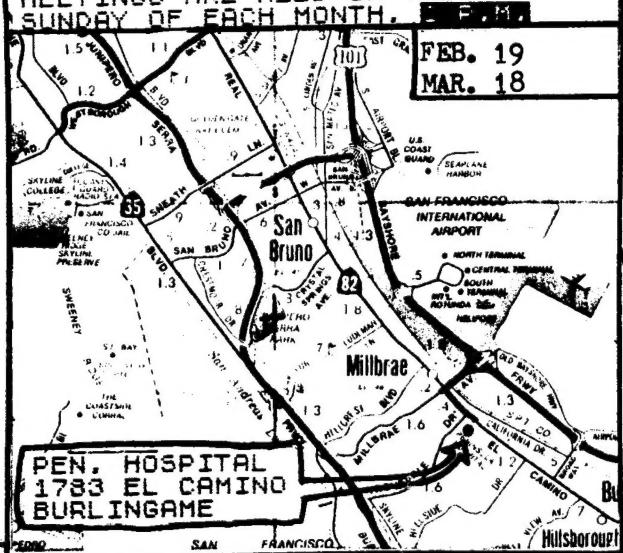
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SEND NEWSLETTER CONTRIBUTIONS:

FRANK MOURA
858 CHENERY ST.
SAN FRANCISCO, CA. 94131
(415) 333-2231

MEETINGS ARE HELD ON THE 3RD
SUNDAY OF EACH MONTH. 7 P.M.

FEB. 19
MAR. 18



SOUTH BAY T/S USER GROUP

The next SB meeting will be
Tuesday, Feb. 29, 1984 at
7 PM at Dysan Corporation
Headquarters, 5201 Patrick
Henry Dr, Santa Clara.

For Information contact

SBAZUG President: Rita Carr
c/o TIMELINEZ
Fox 1312
Pacifica CA 94044
(415) 738-2888 x4579

TIMELINE? TS 1000 Solar Water Heater Reviewed

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SOFTWARE REVIEW
BY
PAUL D. PERREAULT

SOLAR WATER HEATER DESIGNER

TYPE: ENGINEERING
PRICE: \$
ROM/RAM: 8K/16K
LISTING? NO
EASY TO USE? YES
WRITTEN IN BASIC
AUTHOR: TIM ROSSETTI / TIMEX

DO YOU WONDER IF IT IS WORTH ADDING A SOLAR HEATING UNIT TO YOUR HOUSE OR APARTMENT COMPLEX? HOW MUCH FUEL DOLLARS COLD YOU SAVE? THIS PROGRAM PROVIDES SOME ROUGH NUMBERS FOR PERFORMING VARIOUS "WHAT IF" EXERCISES.

UPON LOADING, THE USER IS PRESENTED WITH A LIST OF CITIES FROM WHICH HE CHOOSES ONE CLOSEST TO HIS AREA OF INTEREST.

NEXT THE PROGRAM PROMPTS FOR COLLECTOR ANGLE. BUT IT ASKS FOR IT IN TERMS OF LATITUDE. IT MAY BE A LITTLE CONFUSING TO SOME AS TO WHY LATITUDE IS EVEN MENTIONED, SINCE THE SOFTWARE COULD PERFORM THE CALCULATIONS BEHIND THE SCENES. THE UNEXPLAINED POINT IS THAT TO MAXIMIZE HEAT GAIN IN THE WINTER YOU SET THE COLLECTORS AT A HORIZONTAL ANGLE EQUAL TO YOUR LATITUDE PLUS 10 TO 15 DEGREES, AND IN THE SUMMER ITS LATITUDE MINUS 10 TO 15 DEGREES. HOT TUBS ARE USED MORE IN THE WINTER AND POOLS MORE IN THE SUMMER.

THE PROGRAM THEN ASKS YOU TO SPECIFY THE ANGLE FROM MAGNETIC SOUTH THAT YOUR COLLECTORS POINT. CALCULATIONS ACTUALLY USE GEOGRAPHIC SOUTH, BUT THE CONVERSION IS MADE INTERNALLY. COLLECTOR EFFICIENCY IS THEN ENTERED. HERE THE PROGRAM GIVES YOU A FEW REPRESENTATIVE VALUES TO USE FOR A COMPARISON. YOU MAY ALSO ENTER VALUES FOR YOUR SPECIFIC COLLECTOR, IF KNOWN.

HERE THE PROGRAM MAKE ONE OF ITS OVER-SIMPLIFICATIONS: THE EFFICIENCY OF A PANEL IS NOT A SIMPLE SINGLE NUMBER. IT DEPENDS ON THE TEMPERATURE RANGE OVER WHICH IT IS OPERATED. A COLLECTOR USED FOR SWIMMING POOLS HAVE EFFICIENCIES THAT ARE QUITE HIGH, LIKE 70 PERCENT, BECAUSE THE WATER TEMPERATURE IN THEM IS LOW, LIKE 80 DEGREES. THE SAME COLLECTOR USED IN

The following article was retyped from the December 1983 issue of SYNTAX Magazine. It contains some important information for 2068 owners. To subscribe to SYNTAX:

Syntax ZX80, Inc.
RD 2, Box 457,
Harvard, MA 01451

SPECTRUM MACHINE CODE ON 2068

Some Spectrum MC tapes will run on your 2068, The Fruit Machine, for example. Your chances are better if the program is written for 48K. Programs that call keyboard scan routines--as IN 64510, 61438, 32766, or 65278--will run if you change these to INKEY\$ or STICK commands on your 2068. Also programs written with MC above RAMTOP are more likely to run. Because Spectrum program memory starts lower than in the 2068, the tape tries to load where the 2068 cannot accept it.

If you have a new Timex Sinclair 2068 you won't want to pass up this offer.

2068 SW AT REDUCED PRICES

These are some of the best public domain Spectrum programs from England - translated and debugged from leading British publications to run on your 2068.

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DEMOLITION - Drop explosive asterisk down on an advancing brick wall. Addictive.
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SKI RUN - Manneuver your skier down a course while avoiding obstacles.

Program Pack 2

MAZE - Find the pot of gold at the end of a 3D maze.
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KNIGHT - Your knight and the computer knight fight to the death on horses and on the ground. Neat graphics.

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TIMELINEZ Solar Water Heater (cont.)

10

DOMESTIC HOT WATER SYSTEMS HAVE EFFICIENCIES WHICH FALL OFF DRAMATICALLY TO AROUND 40 TO 50 PERCENT BECAUSE THE WATER TEMPERATURE IS QUITE HIGH, UP TO 160 DEGREES.

NOW THE PROGRAM CALCULATES THE HEAT GAIN EXPECTED AT YOUR LATITUDE AND COLLECTOR ORIENTATION, IN BTU/SQ FT PER MONTH. THE PROGRAM APPEARS TO USE AVERAGE VALUES OF INSULATION FOR EACH CITY, SO THE CALCULATED VALUES ARE ONLY REPRESENTATIVE. ITS A PAIN THAT THE PROGRAM DOESN'T HAVE A PROVISION TO COPY THIS DATA. SO YOU HAVE TO PRESS "BREAK" THEN "COPY". HOWEVER AFTER YOU DO THIS YOU MUST ENTER GOTO 100 TO RESTART THE PROGRAM.

Now you design your own SOLAR SYSTEM BY INPUTTING VALUES FOR DAILY WATER USAGE, COLD WATER SUPPLY TEMPERATURE, AND DESIRED HOT WATER TEMPERATURE. ALTHO IT IS ASSUMED THAT 20 GALLONS OF HOT WATER PER PERSON PER DAY IS REQUIRED, EXPERIENCE SHOWS THAT DISHWASHERS ADD ANOTHER 15 GALLONS/DAY TO THIS TOTAL.

THE NET COLLECTOR AREA IS NOW CALCULATED BY THE PROGRAM. THE AUTHOR COULD HAVE ADDED ONE SLIGHT IMPROVEMENT HERE BY PRESENTING A CHOICE OF STANDARD COLLECTOR SIZES. THIS WOULD TRANSLATE NET COLLECTOR AREA TO NUMBER OF PANELS REQUIRED.

PRESSING ANY KEY NOW PRESENTS A TABLE OF CALCULATED DATA. IT WOULD BE NICE TO BE ABLE TO PRINT THIS TABLE FROM WITHIN THE PROGRAM. BUT NO, YOU MUST PLAY THE BREAK, COPY, AND GOTO 100 GAME AGAIN.

NEXT, YOU CAN CALCULATE FUEL SAVINGS BY ENTERING THE COST OF FUEL USED. THE ANNUAL COST OF THE HEAT REQUIRED BY YOUR HOUSE IS THE PRESENTED. THIS IS YOUR ANNUAL SAVINGS IF SOLAR HEAT IS USED IN PLACE OF FUEL.

ONE PECULIARITY OF THIS PROGRAM IS THAT IT ASSUMES THAT YOUR SOLAR STORAGE TANK IS THE SAME AS YOUR DAILY HOT WATER REQUIREMENTS. TYPICAL TANK SIZES ARE: 30, 40, 50, 75, 82 AND 100.

TO USE THE RESULTING NET COLLECTOR AREA YOU PROBABLY SHOULD KNOW THAT SOLAR PANELS COME IN 4X8, 4X10 SIZES USUALLY BUT THAT SOME OTHER SIZES ARE ALSO AVAILABLE.

ONE LOCAL COMPANY NOW COMBINES BOTH THE STORAGE AND COLLECTOR TOGETHER IN A NICE LOOKING, RELIABLE, BUT EXPENSIVE PACKAGE.

I ENJOYED USING THIS PROGRAM AND FOUND IT HELPFUL. IT WOULD BE GREAT FOR A SMALL SOLAR ENERGY BUSINESS.

TIMELINEZ P.O. BOX 1312 PACIFICA CA 94044	
Newsletter ☺ GEORGE Coordinator ☺ MOCKRIDGE	
Editors EBZUG ☺ RICK LINK PUG ☺ FRANK MOURA SBAZUG ☺ TED HELDERMAN	
Advertising PUG ☺ NORM LEHFELDT SBAZUG ☺ RITA CARR	
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